

# Annual Energy Report for Texas A&M University – Commerce, 2016

## Executive Order RP-49

### A. The extent to which the agency has met the percentage goal established for reducing its usage of electricity, gasoline, and natural gas:

	Electricity (KWH)	Natural Gas(MMBTU)	Gasoline (Gals)
2016	40,903,649	72,583	33,998
2015	39,212,782	79,769	32,088
% difference	+4.3	-9.0	+5.9

	Electricity (\$)	Natural Gas (\$)	Gasoline (\$)
2016	2,645,627	211,947	66,860
2015	2,613,231	322,263	83,913
% difference	+1.2	-34.5	-20.5

Electricity costs were up about 1% and usage was up about 4 % vs. the previous fiscal year (Sept – August).

Natural gas costs were down about 34 % and usage was down about 9 % vs. the previous fiscal year.

Gasoline costs were down about 20% and usage was up about 6% vs. the previous fiscal year.

Changes in the total amount of space that is heated and cooled as well as rising student numbers living on campus have created challenges to reduce year to year. The University feels that changes to engineering systems and behavioral practices that are occurring will produce energy reductions in the future.

### B. The steps the agency has taken to increase the percentage goal for reducing its usage of electricity, gasoline, and natural gas:

- The University has completed an investment-grade audit and is in the process of analysis to determine if a performance contract is warranted. Elements of this audit include: installation of water, gas, and electricity meters on all campus buildings; replacement of indoor lighting to LED; installation of window film; replacement and reset of HVAC controls to desired temperature and energy settings; and, possibly replacement of specific non-energy efficient HVAC systems.
- The University has replaced several chillers on campus; including two new chillers at the PAC building, two new package units at AG/IT building, one new chiller at the Art Sculpture building, one new chiller at Smith Hall and one new chiller at Berry Hall.

- The University has replaced old, leaking air handling units at the Art, Binnion and the Art Sculpture buildings.
- The University made improvements to the chilled water loop by adding cutoff valves and changing out supply and return piping to improve circulation and cooling at the Sam Rayburn Student Center and Gee Library.

**C. Any additional ideas the agency has for reducing energy expenditures relating to facilities:**

- On-going education of students, faculty and staff related to their role in saving energy on campus.
  - Environmental and energy advisory group is making education and engagement a significant role in their mission.
  - Possibility of engaging students or staff through competition to save energy.
  - Encourage reporting of leaking faucets, outdoor lights on during daylight hours, etc.
- Investigation of window film on the 12 story residential building.
- Investigation of the use of daylight harvesting in hallways.
- Use more effective scheduling in order to "mothball" some buildings during summer sessions.
- Install building sub meters to identify least efficient buildings to look at possible upgrade/retrofits in order to increase efficiency of building systems.
- Use occupancy sensors to turn off lights in all common areas such as hallways, bathrooms and lobbies when traffic is low.
- On-going education of students, faculty and staff related to their role in saving.

**D. Any additional ideas the agency has to minimize fuel usage in all vehicles and equipment used by the agency.**

- Investigate our travel reasons to increase carpool opportunities or take advantage of video conferencing.
- Reduce/replace older inefficient equipment with more energy-efficient ones.